It is an honor to be invited to present the 2008 John MacQueen Lecture. I have long admired the efforts of the Association of Maternal and Child Health Programs in promoting family-centered and culturally competent systems of care for children and their mothers and in protecting the health of communities. I have much more recently learned of the remarkable work of Dr. John MacQueen and his promotion of programs to provide services for children with special health care needs.

The first John MacQueen Lecture was given in 1988 by Dr. Robert Haggerty, an extraordinary pediatrician who has been a leader in the creation of neighborhood health centers. In the early 1960s, Bob and Joel Alpert, both pediatricians as you know, broke new ground at Harvard by initiating its first maternal and child health program, the Family Health Care Program at Children’s Hospital. Bob and Joel employed pediatricians to treat the kids and internists to treat the mothers enrolled in the program. I had just completed my residency in internal medicine at what was then called the Peter Bent Brigham Hospital and at the National Heart Institute in Bethesda and was working at the Biophysical Laboratory at Harvard when Bob and Joel hired me as the first internist to serve their new program. I had had virtually no practice experience outside my residency and I suspect one of the factors in my selection was the publication in 1962 of a series of articles in the New England Journal of Medicine on the “Medical Consequences of Thermonuclear War.” The articles gained widespread attention and led to the formation of Physicians for Social Responsibility. Work with Bob and Joel was one of the formative experiences that led to my decision to move from work in internal medicine to work in social medicine and public health.

The MacQueen Lectures, starting with Dr. Haggerty’s, have over the years discussed a wide range of health needs of mothers and children. It seems appropriate, for this 20th MacQueen lecture, to honor Dr. MacQueen’s work by discussing the urgent health needs brought on by war and the ways in which health workers can make important contributions to ending what the United Nations Charter terms “the scourge of war.”

Much of my talk today is based on material in the book, War and Public Health, co-edited by Dr. Barry Levy and me. The first edition was published by Oxford University Press in collaboration with APHA in 1997 and the second edition has just been published. We summarized the impact of war on health at the beginning of the first edition a decade ago, a summary that is still relevant to the impact of war today.
War has an enormous and tragic impact -- both directly and indirectly -- on public health. War causes death and disability, destroys families, communities, and the environment, diverts resources and destroys infrastructure needed for human and health services, limits human rights, and often begets further violence.

An estimated 200 million people died directly or indirectly as a result of war during the 20th century. More than half of them were civilians. Many of the civilians have been innocent bystanders, caught in the crossfire of opposing armies or suffering the displacement, the starvation, and the disease produced by war; others were civilians who were specifically targeted during wars for the purpose of producing widespread casualties and fear. Of the wounded who survived, many live with severe disabilities for which there is inadequate medical care and rehabilitation, a problem to which Dr. MacQueen devoted much of his outstanding work.

The impact of war on children was summarized in the 1996 report to the United Nations by Graca Machel, the widow of the late president of Mozambique and the wife of the former president of South Africa, Nelson Mandela:

Millions of children are caught up in conflicts in which they are not merely bystanders, but targets. Some fall victim to a general onslaught against civilians; others die as part of a calculated genocide. Still other children suffer the effects of sexual violence or the multiple deprivations of armed conflict that expose them to hunger or disease. Just as shocking, thousands of young people are cynically exploited as combatants.

In the past decade, an estimated two million children have been killed in armed conflict. Three times as many have been seriously injured or permanently disabled, many of them maimed by landmines. Countless others have been forced to witness or even to take part in horrifying acts of violence.

Although we hear a great deal these days about the need for medical care and rehabilitation for U.S. military personnel wounded, both physically and mentally, by war we hear far less about the urgent needs for care and rehabilitation of children living with disabilities caused by war. These include injuries caused by bombing of areas in which children live and the loss of limbs as children return to work in fields in which landmines have been laid. Those needing care and rehabilitation also include children who have lost one or both parents because of war and who have been severely traumatized by war. War not only causes the wounds but also diverts the resources needed for care and rehabilitation.

The War in Iraq provides us with endless examples of the impact of war on the health of children in Iraq, in the United States, and in the world. In Iraq, along with the deaths of children and the disabilities caused by the bombs and the explosives, damage to water and sewage treatment facilities, leading to 500,000 tons of sewage dumped into rivers have caused gastrointestinal illness, including fatal diarrhea, that predominantly affect children. Children are especially liable to suffer the consequences of disruption of medical care services by damage to medical care facilities and the flight of doctors and other medical care workers. An estimated one-fourth of Iraqi children are malnourished due to food shortages caused by sanction, invasion, and occupation.
Children in the United States have also felt the impact of the Iraq war. The trauma to children caused by the loss of a parent or another family member in Iraq is well recognized. Less well recognized has been the major loss of resources for medical and health services due to the 600 billion dollars already spent by the United States on fighting the war. In the 10 minutes since I started talking, the war has cost the United States over 2 million dollars. Another aspect of the diversion of resources has been the lack of the services of National Guard troops stationed in Iraq to meet emergency needs in the United States.

Children in developing countries have also suffered health consequences because of the war in Iraq. The United States provides the lowest share its Gross National Product of any of the world’s industrialized product for international development aid. A fraction of the money spent on the Iraq war could have sharply reduced world hunger, fully immunized all children in the developing world; and provided clean water and functioning sewage systems for unmet needs worldwide. The United Nations has estimated that about 10 billion US dollars, invested in safe water supplies could reduce by a third the current 4 billion annual cases of diarrhea that result in 2.2 million deaths. In short, investment in international public health of a fraction of the total of 3 trillion dollars the war will cost could have helped provide protection against diseases rooted in poverty, in ignorance, and in absence of services and might have provided greater protection to the people of the United States than the war in Iraq or a global “war on terrorism.”

All over the world, children’s futures are threatened by the potential for war or of other forms of armed violence and particularly threatened by the arsenals of nuclear weapons or of other weapons of mass destruction. As we meet here today, there exist in the arsenals of the world’s nuclear powers 20,000 nuclear warheads with an explosive force of over 200,000 Hiroshima-sized bombs equivalent to 10 billion tons of TNT, 2 tons for every human on the planet. Of these weapons, 2,000 to 3,000 are on hair-trigger alert, ready to be launched on a few minutes notice.

What, then, are the roles of health workers in the protection of children, their mothers and others from the scourge of war? I will discuss these roles under four headings: Addressing the Underlying Causes of War and Terrorism; Controlling the Weapons; Promoting a Culture of Peace; and Promoting Peace Through Health.

--Addressing the Underlying Causes of War and Terrorism

One of the important tasks is addressing the underlying causes of war and terrorism is urging the United States and other wealthy nations to increase funding for humanitarian and sustainable development programs and other programs that address the root causes of war, which include hunger, illiteracy, unemployment, injustice, intolerance, and racism. Substantial reduction of the root causes of war would require increased attention to the Millennium Development Goals. These goals, well-known to you who work on the health of mothers and children, include: eradicating extreme poverty and hunger; achieving universal primary education; promoting empowerment of women; reducing child mortality; combating HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

--Controlling the Weapons
Small arms and light weapons, which are the main weapons currently used in war, are also used to kill children and others in our schools and neighborhoods. Severe controls on possession of handguns and other weapons are needed within the United States and internationally, but the National Rifle Association stands in the way of such action. Efforts by health workers to control these weapons in our communities must be coordinated with the work being done by health workers in other countries and internationally.

Another important area, banning of production, storage, transfer and use of weapons of mass destruction, demands the attention of health workers. The work of the Office for the Prohibition of Chemical Weapons, which enforces the Chemical Weapons Convention, must be supported. Efforts to strengthen the imperfect Biological Weapons Convention, which the United States has blocked, must be supported. Work to lessen the risks posed by the proliferation of nuclear weapons by efforts to stop the production of new weapons, to secure fissile materials that might be used to produce new weapons, to dismantle existing warheads, and to negotiate a Nuclear Weapons Convention must become a priority for health workers. The International Physicians for the Prevention of Nuclear War (IPPNW), which was awarded the 1985 Nobel Peace Prize for its work and the work of its affiliates, such as Physicians for Social Responsibility (PSR) in the United States, is working to prevent use of nuclear weapons and other weapons of mass destruction and to eliminate them from the world’s arsenals.

--Promoting a Culture of Peace

Education of children is particularly important in promoting a culture of peace. Opposition to current practices such as torture and mistreatment of prisoners and invasion of privacy in the name of “security” and support for rejecting pre-emptive war as a means of resolving international conflict and for strengthening and respecting the United Nations and its agencies, the International Court of Justice and the International Criminal Court are important as well but may be viewed as less immediately relevant to children. But parents, educators and health workers have special roles to play in the creation of a culture of peace among children.

--Promoting Peace Through Health

Health workers, by accelerating progress towards prevention of violence, can play important roles in its reduction. The World Health Organization has urged medical workers to work to prevent violence at all levels, including self-directed violence, interpersonal violence, and collective violence. These are in many ways interconnected

Health workers can help reduce violence by working to end conflict and violence in the lives of their patients and by educating themselves, their colleagues, their patients, and their communities about the importance of peace in resolution of conflict. Making presentations, organizing grand rounds and using clinical encounters when appropriate to discuss these issues are important ways to promote a culture of peace. Work through organizations such as AMCHP is important in this effort. A related organization, the American Public Health Association, has established a Peace Caucus and an annual Peace Award to encourage this work among its members.

Although a world without armed violence has long been considered unattainable, the threat of worldwide devastation and death posed by nuclear weapons and the increasing
recognition of the costs of war in lost lives, lost health, and lost resources has brought the dream closer to reality. As President John F. Kennedy expressed it:

Never before has mankind had such capacity to control our own environment, to end thirst and hunger, to conquer poverty and disease, to banish illiteracy and massive human misery. We have the power to make this the best generation of mankind in the history of the world -- or to make it the last.

Some progress has been made toward reducing armed violence. These steps include negotiation of the international treaties that instituted the International Criminal Court, the Anti-Personnel Landmines Ban, and the Chemical Weapons Convention and the efforts to strengthen the United Nations and its agencies. Beyond these initial efforts, further steps are needed to strengthen the United Nations and the International Court of Justice.

In the words of the United Nations Childrens Fund (UNICEF):
The day will come when the progress of nations will be judged not by their military or economic strength, nor by the splendor of their capital cities and public buildings, but by the well-being of their peoples; by their levels of health, nutrition and education; by their opportunities to earn a fair reward for their labors . . . and by the protection that is afforded to the growing minds and bodies of their children.

The poster, “War is Not Healthy for Children and Other Living Things” with which this lecture was introduced was designed by Lorraine Schneider in 1967 as a protest against the Vietnam War. She was a mother of four and the wife of an anesthesiologist. A group of mothers sent 1,000 Mother’s Day cards bearing the image to Washington. The group, “Another Mother for Peace,” played an important role in ending the Vietnam War. As you work with mothers you may wish to remind them of the important role mothers can play in the protection of their children, and all living things, against the “scourge of war.”